

## PORTABLE GAS FRACTIONALIZATION SYSTEM

### Abstract of the Disclosure

A portable gas fractionalization apparatus that provides oxygen rich air to patients is provided. The apparatus is compact, lightweight, and low-noise. The components are assembled in a housing that is divided into two compartments. One compartment is maintained at a lower temperature than the other compartment. The lower temperature compartment is configured for mounting components that can be damaged by heat. The higher temperature compartment is configured for mounting heat generating components. An air stream is directed to flow from an ambient air inlet to an air outlet constantly so that there is always a fresh source of cooling air. The apparatus utilizes a PSA unit to produce an oxygen enriched product. The PSA unit incorporates a novel single ended column design in which all flow paths and valves can be co-located on a single integrated manifold. The apparatus also can be used in conjunction with a satellite conserver and a mobility cart.

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